

CLAIMS

Claims 1-15 cancelled.

16. (currently amended) A toner for developing an electrostatically charged copier or printer image, the toner consisting essentially of:

- a) a binder resin;
- b) a colorant; and
- c) a charge control agent,

wherein the binder resin includes a polyolefin resin having a cyclic structure, wherein the polyolefin resin is a copolymer derived from an alpha-olefin, an alicyclic compound ~~having a~~ **having one** double bond and, optionally, a diene monomer, and wherein the electrostatically charged copier or printer image is fixed **by the action of a heated roller** ~~using a heat roller fixing means.~~

17. (currently amended) A toner for developing an electrostatically charged copier or printer image, the toner consisting essentially of:

- a binder resin;
- a colorant; and
- a charge control agent,

the binder resin further comprises a polyolefin resin having a cyclic structure having :

(i) a low-viscosity resin with a number average molecular weight (Mn) of 1000 to 7500 and a weight average molecular weight (Mw) of 1,000 to 15,000, as measured by GPC, an intrinsic viscosity (i.v.) of less than 0.25 dl/g, and a heat distortion temperature (HDT) by DIN53461-B (~~January 1987~~) of lower than 70°C; and

(ii) a high-viscosity resin having a number average molecular weight of at least 7,500 and a weight average molecular weight of at least 15,000, as measured by GPC, an i.v. of 0.25 dl/g or more, and an HDT of 70°C or higher;

wherein the polyolefin resin is a copolymer derived from an alpha-olefin, an alicyclic compound ~~having a~~ **having one** double bond and, optionally, a diene monomer, and wherein the electrostatically charged copier or printer image is fixed **by the action of a heated roller** ~~using a heat roller fixing means.~~

18. (currently amended) ~~A toner for developing an electrostatically charged copier or printer image, the toner consisting essentially of:~~

~~a binder resin;~~

~~a colorant; and~~

~~a charge control agent,~~

The toner as claimed in claim 17, wherein the binder resin further comprises a polyolefin resin having a cyclic structure having :

(i) a low-viscosity resin having a number average molecular weight (Mn) of 3,000 to 7,500 and a weight average molecular weight (Mw) of 4,000 to 15,000, as

measured by GPC, an intrinsic viscosity (i.v.) of less than 0.25 dl/g, and a heat distortion temperature (HDT) by DIN53461-B (~~January 1987~~) of lower than 70°C; and

(ii) a high-viscosity resin having a number average molecular weight of 7,500 to 50,000 and a weight average molecular weight of 15,000 to 100,000, as measured by GPC, an i.v. of 0.25 dl/g or more, and an HDT of 70°C or higher;

wherein the polyolefin resin is a copolymer derived from an ~~alpha-olefin~~, an alicyclic compound ~~having a~~ **having one** double bond and, optionally, a diene monomer, and wherein the electrostatically charged copier or printer image is fixed **by the action of a heated roller** ~~using a heat-roller fixing means~~.

19. (previously submitted) The toner according to claims 17 or 18, wherein said low-viscosity resin has a Mw/Mn ratio from 1 to 2.5.

Claim 20 cancelled.

21. (currently amended) The toner according to claims 16, 17 or 18, wherein the alpha olefin, ~~for~~ **from** which the copolymer is derived, is ethylene.

22. (currently amended) The toner according to claims 16, 17 or 18, wherein the binder resin ~~includes a~~ **includes said** polyolefin resin with **having** a cyclic structure having an intrinsic viscosity (i.v.) of 0.25 dl/g or more, a heat distortion temperature (HDT) by DIN53461-B of 70°C or higher, and a number average weight of 7,500 or more and a weight average molecular weight of 15,000 or more, as measured by GPC, which is contained in a proportion of less than 50% by weight based on the entire binder resin.

23. (currently amended) The toner according to claims 16, 17 or 18, wherein the binder resin includes said polyolefin resin with a cyclic structure having an intrinsic viscosity (i.v.) of 0.25 dl/g or more, a heat distortion temperature (HDT) by DIN53461-B (~~January 1987~~) of 70°C or higher, and a number average molecular weight of 7,500 or more and a weight average molecular weight of 15,000 or more, as measured by GPC, which is contained in a proportion of ~~not more~~ less than 50% by weight based on the entire binder resin.

24. (previously submitted) The toner according to claims 16, 17 or 18, wherein the polyolefin resin having a cyclic structure comprises at least one functional group selected from the group consisting of a carboxyl group, a hydroxyl group and an amino group.

25. (previously submitted) The toner according to claims 16, 17 or 18, wherein the polyolefin resin having a cyclic structure further comprising a carboxyl group is cross-linked by metal ions or dienes.

26. (currently amended) A toner for developing an electrostatically charged copier or printer image, comprising:

- a) a binder resin that includes a copolymer having a cyclic structure of
 - (i) ethylene, propylene or butylene, and
 - (ii) cyclohexane or norbornene, and optionally,
 - (iii) a diene;
- b) a colorant; and

c) a charge control agent,

wherein the electrostatically charged copier or printer image is fixed by the action of a heated roller ~~using a heat roller fixing means~~.

27. (previously submitted) The toner according to claim 26, wherein said copolymer is formed by a metallocene catalyst or a Ziegler catalyst.

28. (new) A toner for developing an electrostatically charged copier or printer image, the toner consisting essentially of:

- a) a binder resin;
- b) a colorant; and
- c) a charge control agent,

wherein the binder resin includes a polyolefin resin having a cyclic structure, wherein the polyolefin resin is a copolymer derived from

- (1) an alpha-olefin selected from the group consisting of ethylene, propylene and butylene,
- (2) an alicyclic compound having one double bond and, optionally,
- (3) a diene monomer, and

wherein the electrostatically charged copier or printer image is fixed by the action of a heated roller.

29. (new) The toner as claimed in claim 28, wherein said alicyclic compound is cyclohexene or norbornene.

30. (new) The toner as claimed in claim 28, wherein said alicyclic compound is norbornene and the alpha-olefin is ethylene.

31. (new) The toner as claimed in claim 16, wherein said colorant is carbon black, diazo yellow, phthalocyanine blue, quinacridone, carmine 6B, monoazo red or perylene.

32. (new) The toner as claimed in claim 26, wherein said colorant is carbon black, diazo yellow, phthalocyanine blue, quinacridone, carmine 6B, monoazo red or perylene.

33. (new) The toner as claimed in claim 28, wherein said colorant is carbon black, diazo yellow, phthalocyanine blue, quinacridone, carmine 6B, monoazo red or perylene.